EXPLANATION OF PLATE A.

Fig. 1. *Ischnothyreus velox*, Jackson. Upper side of male without legs or palpi. 2. Profile. 3. Eyes of male from above and behind. 4. Underside of abdomen of male. 5. Left palpus, male. 6. Underside of fore-part of abdomen, female, showing genital aperture.

,, 7. *Diblemma Donisthorpii*, sp. n. Upper side of male without legs or palpi. 8. Eyes from above and behind. 9. Under side of abdomen, male. 10. Ditto of female. 11. Left palpus of male. 12. Fore-part of digital joint, right palpus, male, shewing palpal organ processes. 13. Underside (female) showing genital aperture.

,, 14. *Leptyphantes angulata*, Cambr. Genital aperture and process, female. 15. Ditto in profile.

,, 16. *Hilaira pervicax*, Hull. Profile of cephalothorax, male. 17. Right palpus, male in profile. 18. Left palpus in front. 19. Genital aperture, female.

,, 20. *Centromerus probabilis*, sp. n. Profile of cephalothorax, female. 21. Eyes from above and behind. 22. Genital aperture and process. 23. Ditto in profile.

,, 24. *Gongylidium paganum*, Sim. Genital aperture, female.

,, 25. *Typhocrestus digitatus*, Cambr. Genital aperture, female.

,, 26. *Maro minutus*, Cambr. Eyes from in front. 27 and 28. Left palpus in two positions.

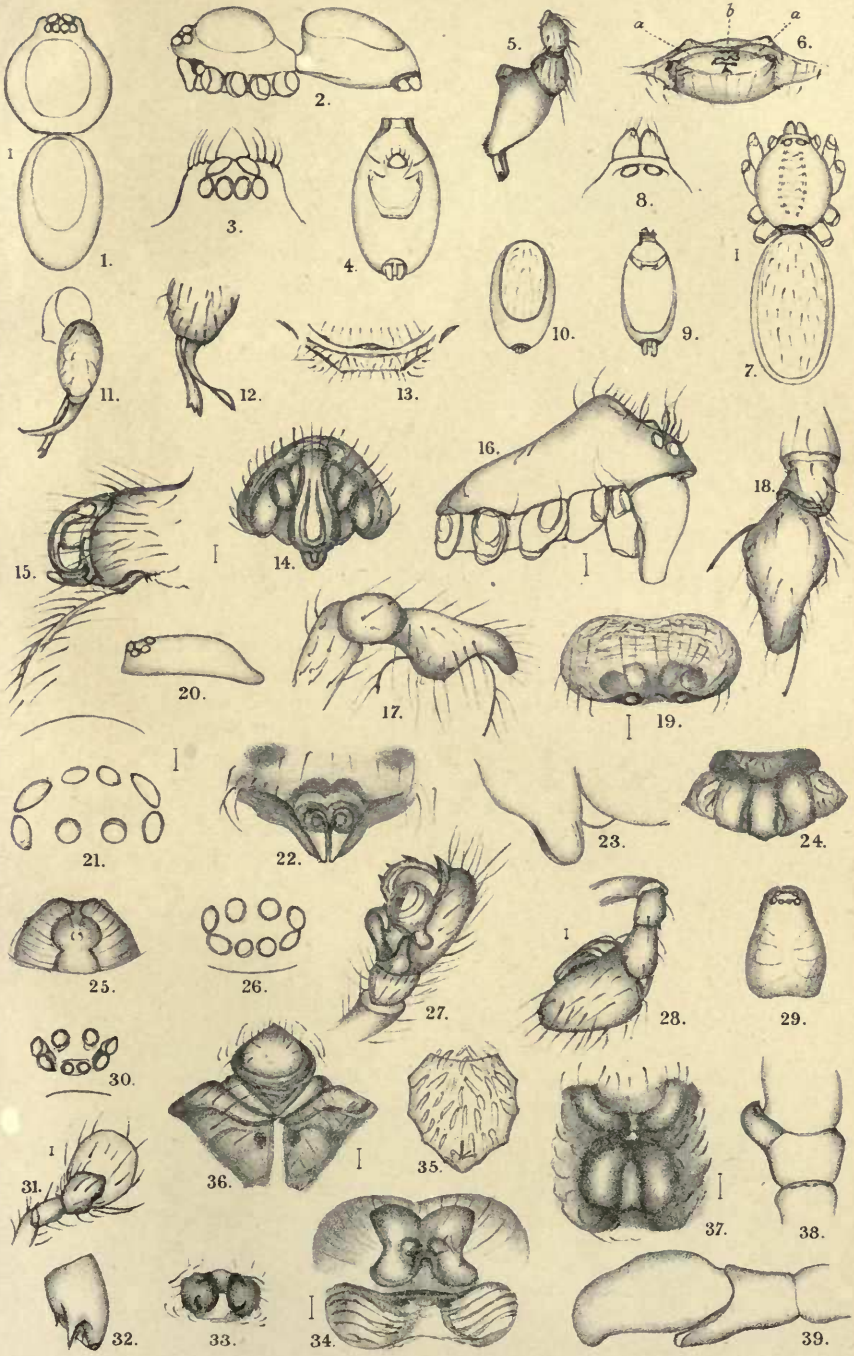
,, 29. *Maro Falconerii*, Jackson. Cephalothorax. 30. Eyes of male from in front. 31. Right palpus of ditto from rather behind. 32. Left falci. 33. Genital aperture, female.

,, 34. *Oxyptila Blackwallii*, Sim. Genital aperture, female.

,, 35. *Oxyptila nigrita*, Thor. Sternum, female. 36. Genital aperture, ditto.

,, 37. *Epiblemum affinitatum*, Cambr. Genital aperture, female. 38. Left palpus, male from above and behind. 39. Ditto on outer side.

Proc. Dorset, N. H. & A. F. Club, Vol. XXIX, 1908.



O. Pickard-Cambridge, del.

M.Farlane & Erskine, Lith. Edin.

NEW AND RARE BRITISH SPIDERS.

On New and Rare British Arachnida,

NOTED AND OBSERVED IN 1907.

By Rev. O. PICKARD-CAMBRIDGE, M.A., F.R.S., &c., &c.

PLATE A.

A FAIR number of rare spiders, comprising two new to science and two* new to Great Britain, have come under my notice during the past year (1907). Others also, both new to science and before unrecorded in Great Britain, have been recorded and described by Dr. A. R. Jackson and the Rev. J. E. Hull, and are included in the following list. For these results I am greatly indebted to the friends mentioned below, my own work having been principally directed to the identification of new or rare species, the correction of synonyms, made possible by the obtaining of fresh examples, and by the more exhaustive examination of others of which some species had been either wrongly or

* One of these, *Erigone spinosa*, Cambr., was received while the present paper was in press, May, 1908.

tentatively determined in time past. One subject of great interest contained in the present communication is afforded by the list subjoined of a number of species of the Order *Acaridea* (or, as popularly known, Mites). The species alluded to are all of one family—*Oribatidæ*, or Beetle-mites. They are very small, many of them quite microscopic, living among moss, dead leaves, decayed and decaying rubbish, and under dead bark of trees, decaying wood and boards, stones, &c., and often looking like minute globular shining black or brown morsels. They are for the most part dull and sluggish in their movements, and are easily collected, having a more or less hardened coriaceous epidermis, and can be preserved well in diluted methylated spirit like spiders, though for a completely satisfactory working out of their structure, which is often very curious, some further manipulation is necessary; and the objects also require preparation in some other fluid besides, or in lieu of, spirit. I have myself never been able to find time for specially working (along with others of the Arachnida) at this group (nor indeed at any other group of the *Acaridea*), though I have at times collected many species. It requires someone who could give up the whole of much spare time to it, and it is a work greatly needed to be done, as, excepting two or three of its isolated groups, there is no British naturalist, so far as I know, who has attacked or who is working at the whole Order of Acarids. To recur, however, for a moment to the subjoined List of *Oribatidæ*, this consists of fifty-two species, forty-nine of which were found in September last by my old friend, Mr. Cecil Warburton (M.A. Christ's College, Cambridge, and "Zoologist to the Royal Agricultural Society of England"), in the course of a few minutes gathering of moss in an old fir plantation (Morden Park, near Bloxworth). No attempt at separating and collecting these little mites individually on the spot is necessary. The moss is placed in a tin box, and the contents can be shaken out and examined indoors at leisure. Mr. Warburton has a mechanical method of sifting out these little creatures from the moss, by which the whole contents are revealed almost at once, thus saving a long

and often wearisome search among the moss itself. I cannot explain exactly this method, as indeed I hardly yet understand it myself; but, if any member of our Field Club were enthusiastic enough to take up the subject, I would gladly get instructions for him from Mr. Warburton, who, I know, would be most glad to give them.

Some interest also attaches to the occurrences (noted in the subjoined List of Arachnida) of several, no doubt imported, exotic Arachnids in greenhouses and hothouses at the Royal Gardens at Kew and elsewhere. From such importations we may possibly in course of time obtain by acclimatisation additions to our indigenous (or rather pseudo-indigenous) Arachnids. We have already two of such in the British list, *Pholcus phalangioides*, Fuess, a great pest in my own house and premises, and *Theridion tepidariorum*, C. L. Koch, an abundant spider in most greenhouses in England, and now and then found among adjoining shrubs and in verandahs, &c.

My best thanks are due to all those friends who have kindly sent me Arachnids during the past year. Among them I would especially mention Dr. A. Randell Jackson, of Chester; Mr. W. Falconer, of Slaithwaite, near Huddersfield; Mr. Horace Donisthorpe, 58, Kensington Mansions, London; Mr. Denis R. Pack-Beresford, Fenagh House, Bagenalstown, Ireland; the Rev. J. E. Hull, Ninebanks Vicarage, Northumberland; Mr. W. Ruskin Butterfield, Hastings, Sussex; Mr. Robert Godfrey, Edinburgh; Mr. F. P. Smith, 15, Cloudesley Place, Islington; Mr. T. Stainforth, The Municipal Museum, Hull; and Mr. G. A. Dunlop, Stockton Heath, Cheshire.

For further information connected with the Arachnida in the following list I would refer to "Spiders of Dorset," 1879-81, and subsequent papers published by the Dorset Field Club in its annual "Proceedings," 1882-1908, also to the "List of British and Irish Spiders," published by Sime and Co., 1900, as also to "Monographs on the British *Phalangidea* or Harvest Men," 1890, and the British *Chernetidea* or "False Scorpions," published in the Dorset Field Club, "Proceedings." Dr. A. R.

Jackson has also published illustrated papers on Arachnida in the "Proceedings" (Chester Soc. Nat. Sc., Literature, and Art), 1907, and Trans. Nat. Hist. Soc. of Northumberland, Durham, and Newcastle-on-Tyne, n.s., Vol. III., Part I., 1908. Two illustrated papers by Mr. F. P. Smith may also be mentioned (published in 1907 in the Journal of the Quekett Microscopical Club) "On British Spiders of the Genus *Lycosa*" and "Some British Spiders taken in 1907. Also a recent paper by the Rev. J. E. Hull (Transactions of the Natural History Society of Northumberland, Durham, and Newcastle-on-Tyne," n.s., Vol. III., Part I.), on "Allendale Spiders."

For reference to a work on the *Oribatidæ*, see "British Oribatidæ," by Albert D. Michael, F.L.S., &c., &c., 2 vols. Ray Society, 1888.

LIST OF NEW AND RARE BRITISH ARACHNIDA.

ORDER ARANEIDEA.

Family THERAPHOSIDÆ.

Sub.-fam. ATYPINÆ.

Atypus affinis, Eichwald.

Two adult males of this spider; the sole British representative of the family, were sent to me by Mr. H. Donisthorpe, from Woking, in October, 1907. The spider is found usually in colonies of greater or less extent in their tubular nests; running down into the earth among the stems of dwarf plants and grass. The female probably never leaves the nest; but the males, when adult, are usually, or at all events often, met with as wanderers. Though not a rare species, it is certainly a very local one, and one of the most striking in appearance of our British spiders.

Family DYSDERIDÆ.

Sub-fam. OONOPINÆ.

Ischnothyreus velox. Pl. A, Figs. 1—6.

Ischnothyreus velox, Jackson, Trans. Nat. Hist. Society of Northumberland, Durham, and Newcastle-on-Tyne, n.s., Vol. III., Part I., p. 5,. Pl. iv., fig. 9-13.

Adults of both sexes were found by Dr. A. R. Jackson in warm greenhouses in the Nursery Gardens at Chester, in November, 1907; others had been met with shortly before in a plant hot-house at Alnwick, Northumberland, by Mr. Bagnall; it has also been recently found in a similar situation in the Kew Gardens, and sent to me thence by Mr. H. Donisthorpe. M. Simon, who has examined some of the examples, has decided them to be of an undescribed species, allied to *Ischnothyreus aculeatus*, Sim. (from the Philippine Islands). There can be but little doubt that the English examples of this and of the following species have been imported originally with plants or packing materials from exotic regions; but, as I understand, there is no clue as to whence either of the species may have come. A Ceylon species, *I. lymphaseus*, Sim., is known to to have come to the green-houses of the Natural History Museum, Paris, and in all probability were imported with plants from Ceylon. (See Bull. du Museum d' Histoire Naturelle, 1896, No. 1.) The importation of Arachnids from abroad in packages of plants, fruit, or packing materials, appears to be of increasing frequency; especially in consignments of bananas, which afford just the kind of protection for soft-bodied creatures (like most spiders), required to bring them without injury. Entomologists should therefore be on the alert at markets, or in warehouses, to await the unpacking of such consignments, and secure the immigrants, noting as accurately as possible the country whence they come.

DIBLEMMA, gen. nov.

Diblemma Donisthorpii, sp. n. Pl. A, Figs. 7—13.

Examples of both sexes received from Mr. Horace Donisthorpe, by whom they were found in the Royal Gardens at Kew. (For description see postea p. 188.)

Family DRASSIDÆ.

Drassus minusculus, L. Koch.

A female of this species was received October 1907, from Mr. W. R. Butterfield, by whom it was found near St. Leonard's-on-Sea, and also an adult male in May, 1907, from Rye Sandhills.

Drassus lapidosus, *Walck.*

Drassus lapidicolens, Walck.-Bl., Spid. G.B.I., p. 116; Cambr., Spid. Dors. and Proc. Dors. F. Club, Vol. XVI., p. 99, 1895.

Drassus cupreus, Bl., Spid. G.B.I., p. 114; Cambr., Spid. Dors., p. 461, and Proc. Dors. F. Club, Vol. XVI., p. 100, 1895.

Drassus macer, Thor.-Cambr., Proc. Dors. F. Club, Vol. XVI., p. 100, 1895, and Vol. XVIII., p. 111, 1897.

An examination of a considerable series of examples, comprising the three forms included in the foregoing synonyms has led me to believe them to be only variations of one species. There is at times considerable variation in the development of the falces, and in their dentition, as well as in the absolute length of the palpi of the male, and their different joints and structure but all endeavour to find any reliable rule for the separation of species from these variations seems to fail when brought to bear on a lengthened series of examples; nor does their colour-variation seem sufficiently constant to help in their separation. The variation in size of examples of the above

three forms is also very great, but affords no reliable clue to the separation of species. Continental araneologists have never, I believe, considered the three forms to comprise more than the one species—*D. lapidosus* Walck; though *Drassus macer*, Thorell, has perhaps most claim to be considered distinct. I confess that I have, myself, only recently and reluctantly arrived at the conclusion that all three are identical.

Prosthesima electa, C. L. Koch.

An adult and immature examples of this spider were received from Mr. W. Ruskin Butterfield, by whom they were found on the Camber Sandhills, Rye, Sussex.

Prosthesima lutetiana, L. Koch.

An adult female of this species was sent to me by Mr. G. A. Dunlop, by whom it was found under a stone at Port Erin, in the Isle of Man, in 1907.

Agroeca inopina, Cambr.

Several immature examples were received from Beer, Devon, where they were found in June, 1907, by Dr. A. Randell Jackson.

Agroeca celans, Blackw.

Two immature females found at St. Leonard's-on-Sea were sent to me by Mr. W. R. Butterfield in June, 1907.

Micariosoma festivum, C. L. Koch.

Agroeca celer, Cambr., Brit. and Ir. Spid., p. 13.

After careful re-examination of all the recorded examples constituting this species (*A. celer*, Cambr.), and much consideration of their relation to *Micariosoma festivum*, C. L. Koch, I have reluctantly come to the conclusion that they are very pale immature examples of this last. An example recorded from Warwickshire in 1903 more nearly approached maturity than any others I have seen. (See Proc. Dors. F. Club, 1903, p. 151., Pl. A, Fig. 1.)

Clubiona neglecta, Cambr.

Both sexes from Camber Sandhills, Rye, Mr. W. R. Butterfield, June, 1907. Though widely dispersed, this still appears to be a rare species.

Family DICTYNIDÆ.

Dictyna variabilis, C. L. Koch.

Adults of both sexes were found rather freely on the south coast near Sidmouth by Dr. A. R. Jackson in June, 1907. Hitherto this little spider has been of rare occurrence. I have received it abundantly from Guernsey.

Protadia subnigra, Cambr.

I found an adult male of this spider on the wall of the Rectory House, Bloxworth, in June 1907. It appears to be still a local and rather rare species.

Protadia patula, Sim,

A female of this rare species was received in October 1907, from Mr. W. R. Butterfield, by whom it was found at Rye Harbour, Sussex, among flood refuse.

Family AGELENIDÆ.

Cœlotes terrestris, Wid.

At p. 124, Vol. XXXVIII., Proc. Dors. N.H. and A.F. Club. An example was recorded as having been found in Northumberland by Dr A. R. Jackson. It should have been "in Surrey by Mr. Bennett."

Tegenaria Hibernica, Cambr.

Adult males from Ireland, Mr. D. R. P. Beresford, November, 1907. This fine species appears to be still confined to Ireland; and, so far as I am aware, to Dublin.

Family HAHNIIDÆ.

Hahnia candida, Sim.

An adult female was received from Portland in June 1907, where it was found by Dr. A. R. Jackson. No other record of this minute species has been made in England since its first discovery as a British spider at Portland by myself, in or about the year 1854. I have, however, received it once since, from Scotland.

Hahnia pusilla, L. Koch.

I have received from Dr. A. R. Jackson an adult male of this species from Delamere Forest, Cheshire.

Family THERIDIIDÆ.

Theridion aulicum, Lucas.

Adults of both sexes were found, and sent to me from the coast near Sidmouth, by Dr. A. R. Jackson, in June, 1907. It is a very distinct species, and must be reckoned as yet among the rarest spiders of this genus found in Britain.

Theridion impressum, L. Koch,

Dr. A. R. Jackson met with both sexes of this spider in some abundance at Delamere, Cheshire, in 1907.

Theridion riparium, Bl.

An adult female was sent to me from Woking, where it was found by Mr. H. Donisthorpe in a nest of an ant *(Formica sanguinea)* in May, 1907.

Theridion Blackwallii, Cambr.

A female of this spider was found in Surrey (probably Richmond Park) by Mr. Bennett, and sent to me by Dr. A. R. Jackson in October, 1907. Adult males were also received from Mr. D. R. P. Beresford, by whom they were found at Belling, Northamptonshire.

Theridion varians, Hahn.

Theridion honorum, Cambr., Proc. Dors. N.H. and A.F. Club., Vol. XIV., p. 151, Fig 4.

There is no doubt but that *T. honorum* Cambr., l.c., is an unusually dark form of the very variable, and, in some localities, abundant species. *T. varians*, Hahn.

Crustulina stieta, Camb.

I met with an adult female of this very local spider, running on the lawn railings at Bloxworth Rectory in May 1907. An unusual spot for this species. Eleven examples (males immature, females adult) were sent to me from Rye harbour by Mr. W. R. Butterfield, in March, 1907. All these examples were of the black variety; as also was an adult female taken at Hastings by Mr. Bennett, and sent to me by Dr. Jackson, in October, 1907.

Laseola jucunda, Cambr.

Adults of both sexes were sent to me from near Pennsylvania, Portland, where they were found under stones and pieces of rock, by Dr. A. R. Jackson, in June, 1907.

Laseola inornata, Cambr.

Laseola dissimilis, Cambr. (female, non male.)

Both sexes found abundantly near Pennsylvania, Portland, by Dr. Jackson, in company with *L. jucunda*.

The female of *inornata* had hitherto been confused with that of *L. dissimilis*, as well as with that of *L. jucunda*.

Laseola erythropus, Simon.

Laseola erythropus, Sim., Arachnides de France, Vol. V., 1881, p. 141.

Laseola proxima, Cambr., Proc. Dors. Field Club, XVI., 1895. p. 102, Pl. A., E. 3*a*, 3*b*.

I have lately identified an adult male of *Laseola* received from Guernsey, with *L. proxima*, Cambr. M. Simon now identifies

the Guernsey example with *L. erythropus*, Sim. (l.c. supra), a species hitherto only known from a single specimen found in South France. There seems to be no doubt about the identity of the two spiders. The English example has also been examined by M. Simon, and its name *proxima* thus gives way to the one previously given by him.

Euryopis flavomaculata, C. L. Koch.

An adult male was received from Mr. W. R. Butterfield, by whom it was found at St. Leonards-on-Sea, Sussex, in June 1907; and an adult female from Mr. Horace Donisthorpe, Newton Moss, Penrith, North Britain, in July, 1907.

Enoplognatha thoracica, Hahn.

Enoplognatha hispida, Camb., Brit. and Ir. Spid. p. 24.

An examination and comparison of numerous examples, both English and from the Island of Guernsey, appear to show that *E. hispida* is a variety only of *E. thoracica*, Hahn. An adult female was received from St. Leonards-on-Sea, from Mr. W. R. Butterfield, in 1907.

Robertus neglectus, Cambr.

An adult male from Ireland, Mr. D. R. P. Beresford, November, 1907; also one from the Hull district from Mr. T. Stainforth.

Leptyphantes Blackwallii, Kulcz.

Leptyphantes acceptus, Cambr., Proc. Dors. N.H. and A.F. Club, Vol. XXIV., p. 153 and 163—1903. pl. A., Fig. 4.

From an examination and comparison of examples of this species from various localities I have come to the conclusion that *L. acceptus* is a variety, in which the chief and most obvious differential characters are the absence of any lateral pale spots or broken stripes on the abdomen, and the

indistinctness of the angular lines, or chevrons, on the hinder part of its upper side. There is considerable variation in the depth and distinctness of the normal abdominal pattern in individuals captured at different times of the year; as well as in the actual size of specimens.

Leptyphantes Mengii, Kulcz.

Adult males received from Ireland; Mr. D. R. P. Beresford, 1907.

Leptyphantes ericæa, Blackw.

Leptyphantes inconspicua, Cambr., Brit. and I. Spid., p. 20, and Spid. Dors., p. 213.

Having compared the type of *L. inconspicua*, with numerous undoubted examples of *L. ericæa*, I feel but little doubt of the identity of the two spiders. When the former was described many years ago as distinct, I had not the advantage I now have of any good microscopical aid beyond that of an ordinary pocket lens.

Leptyphantes angulata, Cambr. Pl. A., Figs. 14-15.

An adult male received from Rev. J. E. Hull, by whom it was found in Northumberland early in 1907. I have also since received both sexes from Mr. Hull. The female is new to science. Of the male I had only seen one previously (the type of the species) from the Cheviot Hills (Spid. Dors., p. 521 c.f. Rev. J. E. Hull's Trans. Nat. Hist. Soc. Northumberland, Durham, and Newcastle-upon-Tyne., N.S., Vol. III., part I., p. 7., Pl. 5., Figs. 5-9).

Porrhomma egeria, Sim.

An adult female, found in a mole's nest at Blakenham, Suffolk, in March, 1907, was sent to me by Mr. H. Donisthorpe.

Porrhomma meadii, F. O. P.-C.

An adult female, Ireland, Mr. D. R. P. Beresford, 1907.

Hilaira pervicax, J. E. Hull. Pl. A., Figs. 16-19.

Hilaira pervicax, J. E. Hull, Trans. Nat. Hist. Soc. Northumberland, Durham, and Newcastle-on-Tyne, 1908, N.S., Vol. III., part 1, p. 5, Pl. V., Fig. 1-2, 2*a*.

This distinct, and new species, is nearly allied to the already known British forms, *H. uncata*, Cambr., and *H. excisa*, Cambr., but, in the male at least, it may easily be distinguished by the form of the cephalothorax and palpi. The female, however, appears to be almost indistinguishable from that of *H. excisa*, Cambr.

A single male and numerous females were found among moss in a pine wood at Whitfield, in Northumberland, at an elevation of 1400 feet, in February, 1908, by the Rev. J. E. Hull.

Gen. CENTROMERUS.

Tmeticus, Mengi.-Cambr., *ad partem*.

Centromerus fortunatus, Cambr.

Tmeticus fortunatus, Cambr. Proc. Dors. F. Club, Vol. XVI., p. 123, Pl. A., Fig. 6.

An adult male was taken on the lawn railings at Warmwell Rectory in December, 1907, by the Rev. R. J. Pickard-Cambridge, and a female by myself at Bloxworth Rectory in June previously.

Centromerus concinnus, Thorell.

Tmeticus concinnus, Thor., Cambr., Brit. and I. Spid., p. 34.

An adult male ; taken on the lawn railings at Bloxworth Rectory by the Rev. R. J. Pickard-Cambridge October 24th, 1907. I have also received both sexes from Hull (Yorkshire) from Mr. T. Stainforth, and from other localities. Whether the differences of structure between this species and

C. bicolor, Blackw., are sufficiently reliable to justify their separation as species it is very difficult to decide ; at present, however, I am still inclined to keep them separate.

Centromerus probabilis, sp. n. Pl. A., Figs. 20-23.

An adult female sent to me from Northumberland in January. 1907, by the Rev. J. E. Hull, appears to me worth recording as a new species. In several respects it indicates a form yet undescribed. I know of none of which it might possibly be the female (not yet met with). Its leading character (the formation of the genital aperture) is of a very distinct and remarkable kind—for a more detailed description. (See post. p. 190).

Centromerus firmus, Cambr.

Tmeticus firmus, Cambr., Pro. Dors. F. Club. XXVI., p. 59, Pl. A., Figs. 13a-13c.

An adult female received from the Rev. J. E. Hull, by whom it was found in Northumberland, in 1906.

Maro minutus, Cambr., Pl. A., Figs. 26-28.

Maro minutus, Cambr., A. R. Jackson, l.c. infra, p. 14. Pl. I.V., Figs. 21-25.

Several more examples of this exceedingly minute spider, including the male, have been found near Huddersfield, by Mr. W. Falconer, and an example of the latter sex has been kindly sent to me by him (1908). The sexes are much alike in general colour and appearance.

Maro Falconerii, Jackson, Pl. A., Figs. 29-33.

Maro falconerii, Jackson, Trans. Nat. Hist. Soc. of Northumberland, Durham, and Newcastle-on-Tyne, Vol. III., Part I., p. 15, Pl. IV., Figs. 16-20.

Adults of each sex of this species were found at Delamere, Cheshire, by Dr. A. R. Jackson, in 1907. It is nearly allied to *M. minutus*, and is quite as small, but the male may easily be distinguished by the prominent tooth in

front of the falces, and the female by the form of the genital aperture. The two sexes are much alike in general colour and appearance.

Micronetа beata, Cambr.

An adult male, found on the lawn railings at Bloxworth Rectory, by the Rev. R. J. Pickard-Cambridge, in October, 1907. This is the first record of this species for Dorsetshire.

Syedra pholcommöides, Cambr.

An adult female on the lawn railings, Bloxworth Rectory, October 24th, 1907, by the Rev. R. J. Pickard-Cambridge.

Gongylidiellum paganum, Sim., Pl. A., Fig. 24.

Gongylidiellum paganum, Sim.-Cambr., Proc. Dors. N. H. and A. F. Club, Vol. XXII., 1903, p. 155, Pl. A., Fig. 7.

An adult male and females, sent to me from County Carlow, Ireland, by Mr. D. R. P. Beresford. This is, I believe, only the second record of the species as British.

Erigone spinosa, Cambr.

Erigone spinosa, Cambr., Proc. Zool. Soc. Lond., 1872, p. 292, Pl. XIII., Fig. 12.

,, *vagans*, Sim. (Non *E. vagans* Audouin in Savigny.) Les Arachnides de France, tom. V., p. 530, Figs. 330-331, 1881.

It was a great surprise to me to find among other spiders received (May, 1908) from Mr. Stainforth, and taken near Hull, both sexes of the very remarkable form of Erigone—*E. spinosa*, Cambr. This little species is easily distinguishable from all others of the forms yet known; it was first found by myself at Cairo in Egypt, afterwards in Palestine, subsequently at Rome, and finally sent to me from Paris by M. Eugène Simon. Since that I have not seen nor heard of

it until now. M. Simon (Arachn. de France, supra cit.) includes it as a synonym of *Argus vagans*, Savigny, described and figured in Savigny's great work on Egypt. (Vide Explication des Planches, Vol. I. part 4 plate I. of that work ; by V. Audouin—date about A.D., 1826.) This description is very indefinite and might quite well apply to several other species of the genus, while the figures (Pl. 1) could not possibly apply to *E. spinosa*, Cambr., the critical portions of the palpi being totally distinct. Baron Walckenaer (Ins. Apt. II., p. 345, 1837) appears to have taken it for granted that the spider he records there as *E. vagans* Aud.-Sav. (and which Audouin says has been again found by Savigny in the environs of Paris on the barriers of the little park of Versailles) was identical with Savigny's species, but this appears quite untenable in the face of Savigny's figures. What Savigny's spider may have been it is probably impossible to say ; the figures look most like *E. longipalpis*, Sund. *E. spinosa*, Cambr., agrees exactly with the French examples sent to me by M. Simon, and which were of a species, according to him, found in numerous localities in France. It is probably identical with *Erigone vagans*, Kulczynski, and, if so, this latter author would also appear to have, equally with M. Simon, overlooked the evidence of the strikingly different form of Savigny's *E. vagans*, furnished by Savigny's figures (l.c. supra). The figure given by Kulczynski of the female is different from that which I found in Egypt ; while the Yorkshire examples resemble it. The female described by Walckenaer (l.c.) is evidently that of another group of spiders altogether; he says : "*Le palpe de femelle terminé par un onglet pectiné*," which is certainly not true of an *Erigone*.

On every account this addition to our List of British Spiders is of great interest.

Erigone longipalpis, Sund.

Adult males sent to me in 1906 from Kirkby (Lancashire) and from Weston-super-Mare by the Rev. J. H. Bloom ; and

both sexes in some abundance were received from Hull in September and October, 1907, from Mr. T. Stainforth, of the Municipal Museum, Hull. The specimens from Kirkby were the largest and best developed I have yet seen.

Erigone arctica, White-Cambr.

Both sexes, found apparently in abundance, were received from Mr. D. R. P. Beresford, Ireland, 1907, also an adult male from Cheshire, found by Dr. A. R. Jackson.

Lophomma laudatum, Cambr.

An adult male received from Mr. W. R. Butterfield, by whom it was found at St. Leonards-on-Sea in June, 1907, and another of the same sex from Northampton from Mr. D. R. P. Beresford.

Lophomma stativum, Simon.

Lophomma stativum, Sim.. Cambr., Proc., Dors. N. H. and A. F. Club, 1905, Vol. XXVI., p.p. 50-64, Pl. A, Figs. 19-21.

An adult male was sent to me in October, 1907, from Ireland, by Mr. D. R. P. Beresford. This, so far as I know, is only its second record in Great Britain and Ireland.

Typhocrestus digitatus, Cambr., Pl. A, Fig. 25.

Erigone digitata, Cambr., P.Z.S., 1872, p. 758, Pl. 66, Fig. 14.

,, *dorsuosa*, Cambr., P.Z.S., 1875, p. 196, Pl. 27, Fig. 6.

Typhocrestus digitatus, Cambr., Proc., Dors., N.H. and A.F. Club 1894, p. 112.

,, ,, Annals Scottish Nat. Hist., January, 1894, p. 19.

Typhocrestus dorsuosus, Cambr., Proc., Dors., N.H. and A.F. Club 1899, p. 8.

,, ,, Brit. and Ir., Spid., 1900, p. 41.

Typhocrestus digitatus, Cambr., Simon Araneides de France, Vol. v., p. 584, sed not *T. dorsuosus*, Sim.

Owing to the temporary loss of the type of *Erigone digitata*, Cambr., I had no opportunity to compare it with the spider which I described three years later as a distinct species under the name *Erigone dorsuosa*, Cambr. Subsequently examples found in England and Scotland were relegated, some to one, some to the other, of these two supposed species; but more recently, having again found the lost type of *E. digitata*, a careful comparison of it with that of *E. dorsuosus* convinced me of their identity. A slight variation in the form and convexity of the caput mainly led at first to their separation.

Typhocrestus dorsuosus, Sim., Araneides de France, Vol. v., p. 586, is quite a different species. M. Simon most probably had two species mixed when he sent me the example which I described as *E. dorsuosus*, and which, as the type of the species, I still possess. At any rate the spider he describes and figures l.c. is evidently totally different from mine, and quite unknown to me.

Although I have long possessed the females of *Typhocrestus digitatus*, it has only recently been figured by Dr. Jackson, see Trans. Nat. Hist. Soc. in Northumberland as before quoted. For figure of this sex see Pl. A., Fig. 25.

The female described by M. Simon, l.c. is not, I think, that of this species. An example of this sex received from Nuremberg (Dr. L. Koch) is identical with my British specimens. An example of the female found by Dr. A. R. Jackson at Portland in June, 1907, is its first record as a Dorset spider.

Entelecara Jacksonii, Cambr.

An adult male received from Dr. A. R. Jackson, by whom it was found at Delamere in 1907.

Lophocarenum Mengii, Simon.

An adult male from Ireland, Nov., 1907, sent to me by Mr. D. R. P. Beresford.

Thyeosthenius biovatus, Cambr.

An adult male from the nest of *Formica rufa*, Weybridge, May, 1907; Mr. H. Donisthorpe.

Araeoncus crassiceps, Westr.

An adult male sent to me from Ireland by Mr. D. R. P. Beresford, July, 1907, and another of the same sex from Newton Moss, Penrith, Dr. Jackson.

Styloctetor inuncans, Simon.

Cambr., Proc. Dors. N.H. and A.F. Club, Vol. XXIII., p. 25, 1902.

Adult males from Rye Sandhills, Mr. W. R. Butterfield. This is only the second British locality whence this very distinct species has as yet been received.

Styloctetor penicillatus, Westr.

On tree trunks, among lichens, on Rectory Lawn, Bloxworth, in May, 1907, and also on iron railings.

Troxochrus cirrifrons, Cambr.

An adult male from County Carlow, Ireland, Mr. D. R. P. Beresford, July, 1907.

Cnephalocotes interjectus, Cambr.

Adults of both sexes, rather abundant, Rye Harbour, Mr. W. R. Butterfield, October, 1907, among flood refuse.

Tapinocyba insecta, L. Koch.

Both sexes adult from Ireland, Mr. D. R. P. Beresford. This is only the second record in Gt. Brit. and Irld. See Proc. Dors. N.H. and A.F. Club. Vol. XXVI., 1905, pp. 52-68, Pl. B., Fig. 20-23.

Tapinocyba præcox, Cambr.

Adult females sent to me by Mr. D. R. P. Beresford, Ireland, January and July, 1907.

Panamomops bicuspis, Cambr.

An adult male, sent to me from Hull, by Mr. T. Stainforth, 1907.

Wideria melanocephala, Cambr.

A male and female adult, Ireland, Mr. D. R. P. Beresford, October, 1907.

Prosopotheca monoceros, Wid.

Wideria subita, Cambr., Proc. Dors. N. H. and A. F. Club, Vol. XXIII, 1902, p. 26, Fig. 10, *a*, *b*, *c*, *d*, and XXVI., 1905, p. 53.

Having recently been able to compare, the type of *W. subita* with females of *P. monoceros*, there seems no doubt of their identity. *Prosopotheca monoceros* is a widely dispersed, but rare spider. An adult of each sex was sent to me from Rye Harbour in October, 1907, by Mr. W. R. Butterfield.

Ceratinella scabrosa. Cambr.

An adult male was found by myself on the Rectory Wall, Bloxworth, in June, 1907, and both sexes were received from Mr. D. R. P. Beresford, Ireland, in 1907.

Fam. EPEIRIDÆ.

Sub-fam. TETRAGNATHINÆ.

Meta Menardi, Latr.

A female of this spider, received from Portland, where it was found by Dr. A. R. Jackson, at Pennsylvania, in June, 1907. This is its first record in Dorsetshire.

Family THOMISIDÆ.

Xysticus Kochii, Thor.

Adult females from Rye Sandhills, Mr. W. R. Butterfield, May and June, 1907.

Oxyptila flexa, Cambr.

Adults of both sexes from Ireland, Mr. D. R. P. Beresford, October, 1907

Oxyptila nigrita, Thor. Pl. A, Fig. 35-36.

Xysticus nigritus, Thorell., Tijdr., Ent. XVIII., 1875, p. 24.

Oxyptila nigrita., Thor.-Sim., Arachn., de Fr., II., p. 238.

Adult female, length 1½ lines.

This little spider is of the ordinary general form and appearance, and bears much resemblance at first sight to *O. Blackwallii*, Sim. The pattern, however, on the cephalothorax and abdomen differs when closely examined, and the form of the genital process is very distinct. (See figs. 34-36.) Like *O. Blackwallii*, Sim. *O. scabricula*, Westr., and other allied species, the present one is also furnished with strong clavate hairs on the abdomen and other parts. An adult female was received from Mr. H. Donisthorpe, by whom it was found at Deal in 1907, an immature female having been received from near Dover, from the Rev. J. H. Bloom, in 1906. It is new to the British List.

The spider now recorded seems to me to be identical with the female of *Oxyptila Blackwallii* Bösenberg, not, however, with the male. (See Die Spinnen Deutschlands W. Bösenberg, Stuttgart, 1903, p. 359, Pl. 33, Fig. 529 A.)

Oxyptila scabricula, Westr.

Oxyptila scabricula, Westr., Cambr., Proc. Dors. Field Club xxviii., 1907, p. 145, Pl. B, Figs. 57-63.

Adult males and an adult female were sent to me lately by Mr. H. Donisthorpe from sandpits at Chobham, and on the

same day I received adult males from Mr. J. C. Champion by whom they were found in a sandpit at Woking.

Philodromus lineatipes, Cambr.

An immature female found by Mr. Bennett, near Newstead, received from Dr. A. R. Jackson, 1907.

Thanatus striatus, C. L. Koch.

Adult males on the Lawn Railings, Bloxworth, May, 1907.

Family LYCOSIDÆ.

Pirata knorrii, Scop.

Pirata knorrii, Scop. Cambr. Spid. Dors., p. 543.

This spider was included in the British List many years ago on the authority of Dr. Ludwig Koch, who reported to me that he had received it from the Isle of Arran. Subsequent investigation and correspondence, however, with Dr. Koch has made it certain that the first report of its occurrence was based on misapprehension. The Arran Spider he had received was without doubt *Pirata piraticus* Clk. *Pirata knorrii* therefore disappears from the List of British Spiders.

Tarentula miniata, C. L. Koch.

An adult female, Rye, Camber Sandhills, Mr. W. R. Butterfield 1907.

Lycosa Farrenii, Cambr.

Both sexes received from Wicken Fen, Cambridge, from Mr. C. Warburton in July, 1907.

Owing to a confusion of names and specimens *L. Farrenii* was stated (Proc. Dors. N.H. and A.F. Club, Vol. XXIV., p. 160) to be identical with *L. ferruginea*, L. Koch. This however is, I think, certainly not the case.

Family SALTICIDÆ.

Epiblemum affinitatum, Cambr., Pl. A, Figs. 37-39.

An adult male and female, received from Dr. A. R. Jackson, were found under old bark on trees in Richmond Park in 1907 by Mr. Bennett. This species is very closely allied to *E. mutabile*, Lucas-Simon, and its type specimen has been doubtfully referred to that species by Mons. Simon. I still, however, believe them to be distinct. Professor Kulczynski, who has examined the Richmond Park examples, thinks that it is *Epiblemum (Calliethera) zebraneum*, C. L. Koch. A comparison, however, with typical specimens of *E. zebraneum* kindly sent to me by Dr. L. Koch, shows it to be quite distinct. The Richmond Park examples are only the second recorded occurrence of *E. affinitatum*, Cambr., the first specimen having been found by myself on Bloxworth Heath in 1860.

Hyctia Nivoyi, Lucas.

Adults of both sexes, found apparently in some abundance on the Rye Camber sandhills by Mr. W. R. Butterfield in May, 1907, and an adult male by Mr. H. Donisthorpe at Deal, September, 1907.

Gen. BIANOR, Peckham.

Proc. Wisc. Acad. Nat. Sc., 1885, p. 384, E. Simon; Hist. Nat. des Araignées II., p. 641.

This genus is closely allied to *Ballus*, C. L. Koch.

Bianor ænescens, Simon.

Ballus ænescens, Simon, Arachn. de France, Vol. III., p. 206.

Bianor ænescens, Sim., A. R. Jackson, Trans. Nat. His. Soc., Northumberland, Durham, and Newcastle-upon-Tyne, n.s. III., Part I., p. 13, Pl. IV., Fig. 1, 2, 3, and 30.

An adult female of this spider, new to Great Britain, was found near Hedley, in Surrey, by Mr. Bennett, and received from Dr. A. R. Jackson in 1907. It may easily be distinguished from *Ballus depressus*, Blackw., by its much darker colour, and the almost entire absence of pattern on the abdomen, which is of a uniform blackish hue, covered with grey pubescens.

Neon reticulatus, Blackw.

Neon levis, Simon-Cambr., Proc. Dors. N.H. and A.F. Club, XII., 1891, p. 96, and *ibid*, XIV., 1893, p. 162.

The adults of *Neon levis*, which I had hoped to find where the immature types occurred (l.c. supra), have never, unfortunately, turned up ; numerous examples, however, of *N. reticulatus*, Bl. at different ages have been found there, and in the neighbourhood, and after much consideration I have come to the conclusion that the types referred to are immature varieties of that species.

Euophrys æquipes, Cambr.

An adult male, of a nearly black variety, received from Dr. A. R. Jackson. It was found at Richmond Park, Surrey, by Mr. Bennett.

Attus saltator, Sim.

An adult female from the Rye Camber Sandhills, sent to me in May, 1907, by Mr. W. R. Butterfield.

Order PHALANGIDEA.

Anelasmocephalus Cambridgii, Westwood.

The example of this curious arachnid, recorded in Proc. Dors. N. H. and A. F. Club, XXVIII., p. 135, was inadvertently stated to have been found near Chester. It was captured by Mr. Bennett near Hastings.

ORDER CHERNETIDEA.

Chelifer cancroides, Linn.

Received from Mr. R. Godfrey, September, 1907, from Glasgow, where it occurred in some abundance in stables. Also from Mr. G. A. Whyte (see "Zoologist," October, 1907, Ser. 4, Vol. XI., p. 388), and several from Edminton, found in a corn store by Mr. H. Donisthorpe in November, 1905. Thirteen examples of this species were also received from the late Mr. A. J. Chitty, by whom they were found in London in the Holborn Granary.

ORDER THELYPHONIDEA.

SUB-ORDER THELYPHONIDES.

Fam. TARTARIDÆ.

Gen. TRITHYREUS, Kraepelin.

Trithyreus Bagnallii, Jackson.

Trithyreus Bagnallii, Jackson. Trans. Nat. Hist. Soc. Northumberland, Durham, and Newcastle-upon-Tyne, 1907, n.s. Vol. III., Part I., p.p. 28-30.

A curious little arachnid belonging to a group of an exotic Order, about which little is really known. A few species only have been met with of this group. The first recorded species was of the Gen. nov. *Nyctalops* (Cambr.), of which I received many years ago examples from Ceylon, recording them as two species, *Nyctalops crassicauda*, and *N. tenuicorda*, and as forming a new family, *Tartarides*, of the Order *Thelyphonidea* Ann. and Mag. N.H. s. 4. Vol. 10, p. 1, Pl. XXII., 1878. These, however, proved subsequently to be the two sexes of the same species. The group has since been studied by the late Dr. Thorell, also by Professor H. J. Hansen, of Copenhagen, and others. The present species is nearly allied to *Nyctalops*, but differs in having eyes, whereas *Nyctalops* has none. It was found in a hothouse in the Kew Gardens by

Mr. Bagnall, and subsequently by Mr. H. Donisthorpe, from whom I have received several examples. It is, of course, an importation at some time or other from exotic regions like the other arachnids before recorded from Kew, and other localities, in a similar habitat.

Order ACARIDEA.

Family ORIBATIDÆ.

Excepting those otherwise noted all the species in the subjoined list were found by Mr. Cecil Warburton in September, 1907, in Morden Park, near Bloxworth, among moss and heather.

Pelops acromios, Herm., found by O. P. Cambridge in Bloxworth District, as well as in Morden Park by Mr. Warburton.

Oribata ovalis, C. L. Koch = *O. punctata*. Found also by O. P. Cambridge in the Bloxworth District.

„ **tecta**, Michael.

„ **gracilis**, Mich.

„ **avenifera**, Mich.

„ **mollicoma**, C. L. Koch.

„ **cuspidata**, Mich.

„ **fusigera**, Mich.

„ **globula**, Nic., also found by O. P. Cambridge in the Bloxworth District.

„ **setosa**, C. L. Koch.

„ **lapidaria**, Lucas, also by O. P. Cambridge in the Bloxworth District.

„ **quadricornuta**, O. P. Cambridge, Bloxworth District.

Hermannia scabra, C. L. Koch.

„ **bistriata**, Nic.

„ **nana**, Nic.

„ **arrecta**, Nic.

Cepheus tegeocranus, Herm.
„ bifidatus, Nic.
„ latus, Nic., also by O. P. Cambridge in Bloxworth District.

Tegeocranus latus, C. L. Koch.
„ relatus, Mich.
„ dentatus, Mich.

Cirrabodes coriacetus, C. L. Koch.
„ marginatus, Mich.
„ elongatus, Mich.
„ femoralis, Nic.

Notaspis tibialis, Nic.
„ longilamellata, Mich.
„ bipilis, O. P. Cambridge, Bloxworth District.
„ trigona, Mich.
„ splendens. C. L. Koch.
„ pectinata, Mich.
„ quadricarinata, Mich.
„ oblonga, C. L. Koch.
„ similis, Mich.
„ lanceolata, Mich.
„ clavipectinata, Mich.
„ sculptilis, Warburton and Pearce.
„ exilis, Nic.

Damæus geniculatus, C. L. Koch ; also by O. P. Cambridge, Bloxworth District.
„ clavipes, Herm.
„ verticillipes, Nic.

Neoliodes theleproctus, Herm ; also by O. P. Cambridge, Bloxworth Rectory.

Nothrus monodactylus, Mich.
„ spiniger, Bloxworth District (O. P. Cambridge).
„ segnis, Herm.
„ sylvestris, Nic.
„ palustris, C. L. Koch.

Nothrus bicarinatus, C. L. Koch.
Hypocthonius rufulus, C. L. Koch.
Hyploderma (Hophlophora) magnum, Nic.; also Bloxworth district (O. P. Cambridge).
„ **dasypus**, Duges.

Notes and Descriptions of Two of the foregoing Arachnida.

ARANEIDEA.

Diblemma, gen. nov.

Allied to *Opopæa*, Sim., which it resembles in general form and appearance; but differs from it (as well as from all other known genera of the *Oonopidæ*) in having only two eyes. These are placed at the fore extremity of the caput, near together in a transverse line, and very close to the lower margin of the clypeus. The legs are destitute of spines, being furnished with hairs only. The abdomen has both dorsal and ventral chitinous plates or scuta. These extend, in some examples, quite to the spinners, in others not quite reaching them; in some examples these plates are of equal length, in others of slightly different lengths. On each side of the sternum (which is oval, obtusely pointed behind) are three converging narrow indentations running inwards nearly half-way to the middle. They begin respectively from between the basal joints of the first and second, the second and third, and the third and fourth pairs of legs. Possibly they may only be of specific importance.

Diblemma Donisthorpii, sp. n.

Adult male, length 1-16th of an inch.

Cephalothorax, oval, obtusely pointed before, slightly hollow-truncate behind; of uniform moderate convexity, and very slightly impressed on the lateral margins at the caput. The profile line

is very slightly curved, and inclines a little upwards from the eyes to the beginning of the hinder slope, which is abrupt and slightly hollow. The surface of the cephalothorax is shining and (under a lens) slightly rugose on the sides. On each side of the median line, from the eyes to the hinder slope, is a somewhat curved longitudinal line of minute tubercles, each bearing a short slender bristle directed inwards. The colour of the cephalothorax is a dull yellowish brown, rather darkest towards and on the lateral margins.

Eyes two; in a transverse oval line, rather obliquely placed, of moderate size, rather diaphanous, whitish, and separated by a small but distinct interval. The height of the clypeus is less than an eye's diameter.

Falces moderately strong, considerably convex towards their base in front (where there are a few prominent bristles), and in colour like the cephalothorax.

Sternum pale yellow; its surface is thinly covered with minute tubercles, each bearing a fine bristle, and marked with six converging indentations (see generic characters *antea*).

Legs tolerably strong, of moderate and sub-equal length. The femora and coxæ are especially strong. They are of a pale yellow-brown hue, clothed with fine and inconspicuous hairs only; and the tarsi end with a small supernumerary claw-joint.

Palpi short, the cubital and radial joints are about equal in length and strength; the digital joint is very large, oval. Beneath its anterior extremity is the palpal bulb, which is small and scarcely defined. From this issue two long, strong, spiny processes diverging at their anterior extremities. One of these processes is sharp-pointed and both are yellow-brown, becoming blackish at their anterior extremities. Figures alone, however, can give any correct idea of their exact form.

Abdomen, elongate-oval, connected with the cephalothorax by a short chitinous pedicle. The dorsal scutum covers the whole or nearly so of the upper side, and is rounded at its hinder extremity. The ventral scutum reaches more or less nearly to the spinners, and is also rounded there. A narrow chitinous collar

encircles the spinners on the under side; the ventral scutum also includes the spiracular plates and extends to the fore-extremity of the abdomen, where it ends in a short rugulose collar receiving the connecting pedicle. The colour of both the dorsal and ventral scutum is like that of the cephalothorax, those parts not covered by the scuta being dull whitish; the whole is furnished thinly with fine hairs.

The *female* resembles the male in size, colour, and general appearance. The genital aperture appears to consist simply in a transverse slit marked by a dark yellow-brown marginal line, at the middle of which there is a very slight, narrow, transverse opening.

Both sexes of this very interesting little spider were found and kindly sent to me from a hothouse in the Kew Gardens on the 13th of February, 1908, by Mr. Horace Donisthorpe. Their domicile is among cinders, underneath flower pots on the floor. In company with the spiders were examples of a small West-Indian Ant (*Wasmannia auropunctata*, Roger), of nearly similar length and colouring, and remarkably like the spider in general appearance. Whether the ant had been imported along with the spider, or whether the habitation of the one beneath the flower pot had taken place before the arrival of the other, are conjectural facts on which we have no evidence. If found together in a natural state one would conclude that a protective resemblance was pointed to by their similar appearance; but whichever might be the one benefitted by this resemblance, it can hardly have been arrived at during their sojourn in a Kew hothouse. Perhaps some entomologist, if there be one, acquainted with the ant in its native country, might know of facts bearing on the point.

Centromerus probabilis, sp. n. Pl. A., Figs. 20-23.

Adult female, length 2⅛ lines.

The general form and aspect of this spider is of the ordinary kind.

The colour of the *cephalothorax* and *falces* is yellow, tinged with brown, that of the *legs* and *palpi* of a clearer yellow, and the abdomen dull yellow-brown.

The *eyes* of the hinder row are of equal size, and are equidistant from each other, the intervals being an eye's diameter. The two rows form a transverse oval, the front row rather the shortest. Its central pair of eyes are separated by half a diameter, and each is a diameter's distance from the fore-lateral eye on its side. The four centrals form a trapezoid a little longer than broad, and narrowest in front. The height of the clypeus a little exceeds half that of the facial space.

Legs, 4, 1, 2, 3, the difference in length not being great. They are furnished with hairs, bristles, and not very strong spines, the latter chiefly on the tibiæ of the second, third, and fourth pairs.

The *palpi* have a few longish spines on the digital, radial, and cubital joints.

The *falces* are tolerably long, nearly cylindrical, slightly divergent and furnished with a short row of 3—4 strongish teeth towards their extremities on the inner side.

The *sternum*, which is heart-shaped, has it posterior extremity drawn out between the coxæ of the fourth pair of legs, joining in with the connecting pedicle without any apparent break in its continuity. This character may possibly prove to be of specific importance.

The *abdomen* is thinly covered with hairs, and the genital process is of very characteristic form.

A single adult female received from the Rev. J. E. Hull from Northumberland.

LIST OF ARACHNIDA

(In the foregoing pages with references to page and Plate A).

Order ARANEIDEA.

Atypus affinis, Eichw.	p. 164.	
Ischnothyreus velox, Jackson	p. 165.	figs. 1-6.